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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,329	05/25/2001	Yim Kwong Ng	14148ROUS01U	2311
626	7590	04/08/2005	EXAMINER	
NORTEL NETWORKS LIMITED P. O. BOX 3511, STATION C OTTAWA, ON K1Y 4H7 CANADA			CHANG, SUNRAY	
			ART UNIT	PAPER NUMBER
			2121	

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/864,329

**Applicant(s)**

NG ET AL.

**Examiner**

Sunray Chang

**Art Unit**

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1 – 11 are presented for examination.

Claims 1 – 11 are rejected.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. **Claims 1 – 11 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Haig Michael Zadikian et al. (U.S. Patent No. 6,631,134 and referred to as Zadikian hereinafter), and in view of Ernst A. Munter (U.S. P.G. Pub. No. 2002/0075540 and referred to as Munter hereinafter).

(Zadikian as set forth above generally discloses the basic inventions.)

3. **Regarding independent claim 1,**

Zadikian teaches,

- An optical cross-connect platform; [Fig. 4]
  - a. power service modules; [Fig. 4 – 11, Col. 12, Line 55 – Col. 18, Line 25]
  - b. shelf controller cards; [Fig. 4 – 11, Col. 12, Line 55 – Col. 18, Line 25]
  - c. routing, synchronization and protection modules; [Fig. 4 – 11, Col. 12, Line 55 – Col. 18, Line 25] and
  - d. port cards; [Fig. 4 – 11, Col. 12, Line 55 – Col. 18, Line 25] wherein
- a selected one of the power service modules is associated with a selected one of the shelf controller cards, routing, synchronization and protection modules or port cards; [Fig. 4] and wherein
- the power service modules, shelf controller cards, fans, routing, synchronization and protection modules and port cards are co-located to form functional groups; [Col. 12, Line 55 – Col. 13, Line 5] and wherein
- each power service module and its associated shelf controller card, routing, synchronization and protection module or port card share at least one identifier. [Col. 9, Line 38 – Col. 10, Line 19]

Zadikian does not teach fans;

Munter teaches fan functions [0026 – 0036], for the purpose of providing for a wide range of network capacities coverage and allowing to dynamically reconfigure the connections to accommodate increased traffic demands.

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Zadikian to include "fan functions", for the purpose of providing for a wide range of network capacities coverage and allowing to dynamically reconfigure the connections to accommodate increased traffic demands.

**4. Regarding dependent claims 2 and 7,**

Zadikian teaches,

- an alpha identifier, a numeric identifier or a colour identifier. [Col. 9, Line 38 – Col. 10, Line 19]

**5. Regarding dependent claims 3 and 8,**

Zadikian teaches,

- each of the power service modules, shelf controller cards, fans, routing, synchronization and protection modules and port cards within a functional group are provided with a label associated with the functional group. [Fig. 2, Col. 12, Line 55 – Col. 13, Line 5, and Col. 9, Line 38 – Col. 10, Line 19]

**6. Regarding dependent claims 4 and 9,**

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Zadikian teaches,

- the power service modules are further divided into sub-groups; [Fig. 4, Col. 12, Line 57 – Col. 13, Line 5]
- each subgroup associated with the functional groups of the shelf controller cards, routing, synchronization and protection modules and port cards; [Fig. 2, Col. 9, Line 38 – Col. 10, Line 19, and Col. 12, Line 55 – Col. 13, Line 5] and wherein
- each subgroup and its associated functional group are assigned a identifier. [Col. 9, Line 38 – Col. 10, Line 19]

Zadikian does not teach fan functions and a color identifier.

Munter teaches fan functions [0026 – 0036] and a color identifier [0079 – 0081], for the purpose of providing for a wide range of network capacities coverage and allowing to dynamically reconfigure the connections to accommodate increased traffic demands.

**7. Regarding dependent claim 5,**

Zadikian teaches,

- a port side and a switch side, wherein elements (a) to (e) are contained on the port side and the switch side; [Col. 13, Line 62 – Col. 14, Line 30]
  - a. power service modules; [Col. 13, Line 62 – Col. 14, Line 30] and
  - b. switch cards; [Col. 13, Line 62 – Col. 14, Line 30] wherein

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- a selected one of the power service modules is associated with a selected one of switch cards; [Col. 9, Line 38 – Col. 10, Line 20] and wherein
- the power service modules and switch cards are co-located to form functional groups; [Col. 12, Line 55 – Col. 13, Line 5] and wherein
- each power service module and its associated switch card share at least one identifier. [Col. 9, Line 38 – Col. 10, Line 20]

Zadikian does not teach fan functions.

Munter teaches fan functions [0026 – 0036], for the purpose of providing for a wide range of network capacities coverage and allowing to dynamically reconfigure the connections to accommodate increased traffic demands.

**8. Regarding independent claims 6 and 10,**

Zadikian teaches,

- In an optical cross-connect platform; [Fig. 4]
- power service modules, shelf controller cards, routing, synchronization and protection modules and port cards; [Fig. 4 – 11, Col. 12, Line 55 – Col. 18, Line 25]
- a method of providing error prevention and pathfinding; [Col. 9, Line 20 – Col. 11, Line 22]
  - a. connecting a selected one of the power service modules to a selected one of the shelf controller cards, routing, synchronization and protection modules or port cards; [Fig. 4]

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- b. grouping the power service modules, shelf controller cards, routing, synchronization and protection modules and port cards into co-located functional groups; [Col. 12, Line 55 – Col. 13, Line 5]
- c. assigning each power service module and its associated shelf controller card, routing, synchronization and protection module or port card at least one common identifier; [Col. 9, Line 38 – Col. 10, Line 19] and
- d. using the at least one common identifier, correlating a selected one of the shelf controller cards, fans, routing, synchronization and protection modules or port cards with its associated power service module. [Col. 9, Line 38 – Col. 10, Line 19]

Zadikian does not teach fan functions.

Munter teaches fan functions [0026 – 0036], for the purpose of providing for a wide range of network capacities coverage and allowing to dynamically reconfigure the connections to accommodate increased traffic demands.

9. **Regarding independent claim 11,**

Zadikian teaches,

- A method of error detection and pathfinding in an optical cross-connect platform, [Fig. 4, and Col. 9, Line 20 – Col. 11, Line 22]



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- the cross-connect comprising power service modules, shelf controller cards, routing, synchronization and protection modules and port cards, [Fig. 4 – 11, Col. 12, Line 55 – Col. 18, Line 25]
- a selected one of the power service modules is associated with a selected one of the shelf controller cards, routing, synchronization and protection modules or port cards, [Fig. 4]
- the power service modules, shelf controller cards, routing, synchronization and protection modules and port cards are co-located to form functional groups; [Col. 12, Line 55 – Col. 13, Line 5] and wherein
- each power service module and its associated shelf controller card, routing, synchronization and protection module or port card share at least one identifier, [Col. 9, Line 38 – Col. 10, Line 19] the method comprising:
- locating a selected one of the shelf controller cards, fans, routing, synchronization and protection modules or port cards in less than 3 seconds. [Col. 15, Lines 40 – 59]

Zadikian does not teach fan functions.

Munter teaches fan functions [0026 – 0036], for the purpose of providing for a wide range of network capacities coverage and allowing to dynamically reconfigure the connections to accommodate increased traffic demands.

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**Conclusion**

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. William E. O'Neil (U.S. Patent No. 5,655,912) discloses a single color of a color code for identification. Zadikian et al. (U.S. Patent No. 6,724,757) discloses a shelf processor, a shelf switch, a shelf processor, a group matrix, an identifier, and an optical signal.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunray Chang whose telephone number is (571) 272-3682. The examiner can normally be reached on M-F 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-746-3506.

Sunray Chang  
Patent Examiner  
Group Art Unit 2121  
Technology Center 2100  
U.S. Patent and Trademark Office

March 31, 2005



**Anthony Knight**  
**Supervisory Patent Examiner**  
**Group 3600**